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10/722,631

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David D. Bohn

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BANNER & WITCOFF, LTD.

ATTORNEYS FOR CLIENT NOS. 003797 & 013797

1100 13th STREET, N.W.

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EXAMINER

NEWMAN, MICHAEL A

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/722,631

Applicant(s)

BOHN ET AL.

Examiner

Michael A. Newman

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 26/Nov/2003, 21/Dec/2005.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

DETAILED ACTION***Double Patenting***

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-30 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-30 of copending Application No. 10/722,795. Claims 1, 15 and 21 of the current application are a broader version of claim 1, 11 and 23 of copending Application No. 10/722,795 with omission of:

- (1) a scan head, which is *movably* mounted,
- (2) a housing *having an angled way* and
- (3) a step of *combining* a series of scan lines.

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Although the conflicting claims are not identical, they are not patentably distinct from each other because omission of element and its function in combination is obvious expedient if remaining elements perform same functions as before. In re KARLSON (CCPA) 136 USPQ 184 (1963).

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claim 1 – 14, 15, 17, 19, 21-28 are rejected under 35 U.S.C. 102(b) as being anticipated by Tuli (U.S. Patent No. 5,942,761).

a. Regarding claim 1, 6, 7, 8, 11 and 12, Tuli teaches an input device for scanning a biometric image, comprising: a housing (**Fig. 1 – element 1**); a scan head mounted to the housing (**Fig. 1 – element 7**); a platen moveably mounted to the housing for movement relative to the housing and the scan head between a first position and a second position (**Fig. 1 – element 5**); and a biasing device configured to bias the platen into its first position (**Fig. 1 – element 9**).

b. Regarding claim 2, Tuli teaches the device of claim 1, further comprising an encoder target (**Fig. 4 – element 13; Col. 6 lines 48 – 49**).

c. Regarding claim 3, Tuli teaches the device of claim 2, wherein the scan head is configured to scan a pattern on the encoder target and to capture a scan

line of the biometric image and a portion of the pattern on the encoder target

(Col. 6 lines 39 – 46).

d. Regarding claim 4, Tuli teaches the device of claim 2, where in the scan head is adapted to capture scan lines as the platen is moved **(Col. 5 lines 45 – 50).**

e. Regarding claim 5, Tuli teaches the device of claim 2, wherein the encoder target comprises a repeating pattern **(Fig. 4 – element 13).**

f. Regarding claim 9, Tuli teaches the device of claim 2, wherein a pattern on the encoder target is used for calibrating a series of scan lines to form an image representative of the biometric image **(Col. 5 lines 55 – 57).**

g. Regarding claim 10, Tuli teaches the device of claim 1, wherein movement of the platen away from the first position activates the scan head **(Col. 5 lines 9 – 11).**

h. Regarding claim 13, Tuli teaches the device of claim 1, wherein the biometric image comprises a fingerprint **(Fig. 1 – element 17 of 8 – a finger).**

i. Regarding claim 14, Tuli teaches the device of claim 3, wherein the platen comprises a transparent window, an upper surface and lower surface **(Fig. 1 element 5 – Col. 5 line 39)**, the upper surface configured to provide a contact area for the biometric image **(Fig. 1 element 17 – Col. 5 line 37)**, wherein the housing is configured to provide a support surface **(Fig. 3 element 12 – Col. 6 lines 33 – 36)** and the platen moves parallel to the support surface **(Fig. 1-initial state- vs. Fig. 2-final state-)**, wherein the scan head is adaptive to capture scan

lines as the platen is moved (**Col. 6 lines 39 – 46**), wherein the biasing device comprises a coiled spring (**Fig. 1 – element 9**), and wherein a pattern on the encoder target is used for calibrating a series of scan lines to form an image representative of the biometric image (**Col. 5 lines 55 – 57**), the biometric image comprising a fingerprint (**Fig. 1 element 17 – Col. 5 line 37**).

j. Regarding claims 15 and 19, Tuli teaches an input device for scanning a biometric image, comprising: a housing (**Fig. 1 – element 1**); a platen moveably mounted to the housing for movement relative to the housing between a first position and a second position (**Fig. 1 – element 7**); an encoder target associated with the platen (**Fig. 4 – element 13; Col. 6 lines 48 – 49**); and a scan head (**Fig. 1 – element 7**), the scan head being configured to scan a pattern on the encoder target and to capture a scan line of the biometric image and a portion of the pattern on the encoder target (**Col. 6 lines 39 – 46**).

k. Regarding claim 17, Tuli teaches the device of claim 15, further comprising a biasing device (**Fig. 1 – element 9**).

l. Regarding claims 21 – 23, 25 and 26, Tuli teaches a method of scanning a biometric image with an input device having a platen and a housing, comprising: sensing movement of the platen relative to the housing (**Col. 5 lines 45 – 50**); and capturing a series of scan lines of the biometric image on the platen and a corresponding pattern of an encoder target as the platen is moved (**Col. 6 lines 51 – 55**).

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m. Regarding claim 24, Tuli teaches the method of claim 21, wherein the movement is a vertical direction (**Figs 15 and 16**) [**Note that the scanning operation is the same as that of the horizontal movement embodiment**].

n. Regarding claim 27, Tuli teaches the method of claim 21, further comprising the step of using the pattern on the encoder target to combine the series of scan lines to form an image representative of the biometric image (**Col. 6 lines 47 – 67**).

o. Regarding claim 28, Tuli teaches the method of claim 21, wherein the step of sensing movement of the platen activates a scan head (**Col. 6 lines 9 – 10**).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

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7. Claims 16 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tuli (U.S. Patent No. 5,942,761) in view of Scott et al. (U.S. Patent No. 6,178,255). Hereinafter referred to as Tuli and Scott respectively.

a. Regarding claims 16 and 18, Tuli teaches all the limitations of the parent claim 15 as set forth in the 102 rejection of claim 15 above. Tuli also teaches that the housing is configured to provide a support surface (**Fig. 3 element 12 – Col. 6 lines 33 – 36**) and the platen moves parallel to the support surface (**Fig. 1-initial state- vs. Fig. 2-final state-**); However, **Tuli fails to teach** that the encoder target comprises a non-repeating pattern. **Pertaining to the same field of endeavor, Scott teaches a similar fingerprint scanner where the position of the platen is determined by viewing a bar code (called a “caliper”) along side the desired finger print (Scott Fig. 10 – element 90 and Fig. 11) [Note that the caliper is a non-repeating 12-bit binary code pattern, See Scott Col. 6 lines 11 – 21]. Furthermore, Scott teaches that the use of such a caliper allows for individual segments of a fingerprint, which have been randomly recorded and stored, to be accurately and coherently reassembled (Scott Col. 2 lines 46 – 51). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to replace Tuli’s repeating pattern with a non-repeating pattern as taught by Scott to relax the requirements of sequentially recording and storing the fingerprint scan lines while still accurately reproducing the image.**

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8. Claims 20, 29 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tuli (U.S. Patent No. 5,942,761) in view of Barton et al. (U.S. Patent No. 7,162,060). Hereinafter referred to as Tuli and Barton respectively.

a. Regarding claims 20 and 29, Tuli teaches all the limitations of the parent claims 15 and 21 respectively as set forth in the 102 rejection of claim 15 above. However, **Tuli fails to teach** a start of scan sensor having a first state and a second state, wherein movement of the platen away from the first position changes the state of the start of scan sensor; and an end of scan sensor having a first state and a second state, wherein contact between the platen and the end of scan sensor changes the state of the end of scan sensor. **Pertaining to the same field of endeavor, Barton teaches a platen movement control system including two end stop opto-interrupter limit switches (Barton Fig. 3 – elements 312 and 314) at each end of the platen's range of movement. Barton teaches that these switches are used to verify that the platen has been moved to a desired location at and end point or to alert the movement has reached a maximum limit (Barton Col. 8 lines 26 – 31). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Tuli by adding the limit switches as taught by Barton to signal the device or user when the platen has moved from its starting point and reached the end point of the scan so as to accurately obtain a full fingerprint scan while avoiding damage caused by exceeding the platen's range of motion.**

b. Regarding claim 30, Tuli teaches all the limitations of the parent claim 21 as set forth in the 102 rejection of claim 21 above. Tuli also teaches that the capturing step is accomplished with a single sensor (**Tuli Fig. 1 element 7**), further comprising the steps: translating the platen (**Col. 5 lines 45 – 50**); and using the pattern on the encoder target to combine the series of scan lines to form an image representative of the biometric image (**Col. 6 lines 47 – 67**). However, **Tuli fails to teach** sensing that the scan is complete with an end of scan switch. **Pertaining to the same field of endeavor, Barton teaches a platen movement control system including two end stop opto-interrupter limit switches (Barton Fig. 3 – elements 312 and 314) at each end of the platen's range of movement. Barton teaches that these switches are used to verify that the platen has been moved to a desired location at and end point or to alert the movement has reached a maximum limit (Barton Col. 8 lines 26 – 31). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Tuli by adding the limit switches as taught by Barton to signal the device or user when the platen has moved from its starting point and reached the end point of the scan so as to accurately obtain a full fingerprint scan while avoiding damage caused by exceeding the platen's range of motion.**

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. O'Gorman et al. (U.S. Patent No. 6,970,584) teaches a scan-line finger print sensor with stationary and movable components.
- b. Helot et al. (U.S. Patent No. 6,504,945) teaches a fingerprint reader with a sliding guide mechanism using a similar biasing spring mechanism.
- c. Kramer et al. (U.S. Patent No. 6,317,508) teaches a scan-line type finger print detector including how to assemble the resulting image from the scanned sections.
- d. Schiller (U.S. Patent No. 4,569,080) teaches a fingerprint processing apparatus with a similar platen mounted on a carriage to permit translational movement.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael A. Newman whose telephone number is (571) 270-3016. The examiner can normally be reached on Mon - Thurs from 8:30am to 6:30pm (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Kelley can be reached on (571)-272-7331. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

M.A.N.


CHRIS KELLEY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2609